

Berg
Serial no. 10/045,925
Filed 1/9/2002
Attorney docket no. BEA920000022US1

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REMARKS

Objections to the specification

Pages 1 and 2 of the specification have been objected to because they recite unreferenced serial numbers. The abstract has been objected to because it exceeds 150 words. Applicant has amended both these offending aspects of the specification, and therefore requests that the objections to the specification be withdrawn.

Claim rejections under 35 USC 102

Claims 1-20 have been rejected under 35 USC 102(b), as being anticipated Frisch (US 5,598,568). Applicant respectfully traverse this rejection as to the amended claims, as is now described.

Independent claims 1, 9, 20, and 22 have been amended to better clarify the inventions that Applicant is claiming. Claims 1, 13, and 18 substantially share common limitations insofar as patentability over Frisch is concerned. Therefore, claim 1 is discussed here as representative of claims 1, 9, 20, and 22, insofar as patentability over Frisch is concerned, to avoid redundancy. Applicant asserts that claim 1 is not anticipated by Frisch, as is specifically described below. For similar, if not identical, reasons, claims 9, 20, and 22 are not anticipated by, nor rendered obvious in view of, Frisch. Because the remaining pending claims ultimately depend from one of these independent claims, they are also not anticipated by Frisch for at least the same reasons proffered below.

Brief summary of claim 1

Claim 1 is directed to a method, in which a requestor sends a request for allocating a resource to a central crossbar, and in response the central crossbar allocates the resource at a

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target group. Here's what's important insofar as patentability over Frisch is concerned: claim 1 is limited to the *central crossbar* performing the allocation, where – importantly – this crossbar is limited to interconnecting the requestor and the target *AND* is *separate from* the requestor and the target. Stated another way, the "intelligence" in performing allocation of a resource is accomplished at a central crossbar that is not part of either the requestor or the target.

Frisch does not render claim 1 unpatentable

Frisch does not disclose a *central crossbar* that is *separate from* the requestor and the target as the entity which allocates a resource at a target group. Here's why. In the Office Action, the Examiner indicated that the "central hardware device" – i.e., the central crossbar – in Frisch is the logic circuitry embedded in an application specific integrated circuit. It is this logic circuitry that the Examiner has stated performs the allocation functionality in Frisch. However – and this is the crux of Applicant's argument – the logic circuitry of Frisch is not a central crossbar that is separate from the requestor. Rather, it is part of an interface of the requestor itself, to interface with the central crossbar. In other words, it is not separate from the requestor, because it is part of the requestor.

Let's take a more detailed look at Frisch now to see why this is the case. Frisch discloses the following:

A processing node 26 (or computing environment, or "CE") contains an interface 24 with the crossbar network 10, which in the preferred embodiment takes the form of logic circuitry 38 embedded in an application specific integrated circuit, or CE ASIC. This crossbar interface logic circuit 38 converts some digital signals generated by the processor 18 into digital signals for the crossbar network 10. This allows a node processor 16, for example, to access resources, such as memory, in remote nodes 16, through normal processor reads and writes. The logic circuitry 38 also acts as a path arbiter and as a data-routing switch within the processing node 26, allowing both the local processor 18 and external masters to access node resources such as memory 36 and control registers.

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(Col. 4, ll. 3-16) Therefore, you can see from this passage in Frisch that the logic circuitry 38 is the preferred embodiment of the interface 24 that is "contained" by the requestor/processing node 26 (and thus may be a computing environment, or processor, ASIC). Indeed, this logic circuitry 38 acts as an arbiter and switch "within" the requestor/processing node 26. In contradistinction to the claimed invention, in which the allocation functionality is performed by a crossbar that is *separate from* the requestor, in Frisch the allocation functionality is performed by logic circuitry that is *part of* the requestor/processing node 26 (and indeed is separate from the crossbar).

Stated another way, the crossbar in Frisch does not perform allocation functionality. Rather, an interface that is part of the requestor performs the allocation functionality. The crossbar in the claimed invention may be considered "intelligent" because it performs allocation functionality. By comparison, the crossbar in Frisch may be considered "dumb" because it does not perform any intelligent functionality, but rather is just a standard, garden-variety crossbar. The crux of the invention, insofar as patentability over Frisch is concerned, is that such allocation functionality can be performed by a central crossbar, whereas in Frisch, the allocation functionality is performed in the requestor itself. For this reason, Frisch cannot be considered as anticipating the claimed invention.

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Conclusion

Applicants have made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Applicants' Attorney so that such issues may be resolved as expeditiously as possible. For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



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Date

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